INSTRUCTIONS AND GUIDING PRINCIPLES FOR USE OF THE COMPLEXITY DESCRIPTORS

The process to determine program complexity ratings for units with wildland fire responsibilities is accomplished by reviewing eight major program elements. These elements are composed of sub-elements, each of which are individually evaluated. These eight elements and their sub-elements are:

Program Management: *(ten sub-elements)*

- Fire Season
- Budget
- Logistics
- Workforce Management
- Program Objectives
- Planning
- Contracts
- Agreements/Cooperators
- Multi-Unit Responsibility
- Social/Political/Economic Concerns

Preparedness**:** *(six sub-elements)*

- Training and Qualifications
- Initial Attack Dispatch Office
- Caches
- Support to Other Units
- Fuels and Fire Danger
- Fire Resource Modules

Program Interdependence: *(one sub-element)*

- Consequences of the Outcome of One Program Activity on Another

Land Management Base: *(four sub-elements)*

- Total Acres Managed
- Ownership Pattern
- Wildland/Urban
- Cultural/Natural Resources

Wildland Fire: *(seven sub-elements)*

- Average Annual Wildland Fire Occurrence
- Average Annual Wildland Fire Acres Burned
- Length of Wildland Fire Season
- Values to Be Protected
- Wildland Fire Management
- Firefighter and Public Safety
- Fuels and Fire Behavior

Prescribed Fire/Fuels Management: *(six sub-elements)*

Prescribed Fire *(three sub-elements)*

Prescribed Fire
Multiple Ownership/Multiple Jurisdictions
Burn Season Length

Mechanical *(three sub-elements)*

Treatment Objectives
Implementation
Values to Be Protected

Aviation: *(one sub-element)*

Aviation

Prevention and Education: *(two sub-elements)*

Prevention
Wildland Fire Education

Elements and sub-elements are given weighted values, depending on:

An element's importance to the overall program, and its subordinate sub-elements' relative importance within that element.

When evaluating the complexity of a unit's program, a manager identifies the most accurate of the appropriate narrative descriptors, then assigns numerical ratings of 0-5 to each sub-element.

- A "0" indicates that the sub-element doesn't apply.
- Scores of "1", "3" and "5" are assigned when the unit falls squarely within the narrative descriptors.
- Scores of "2" and "4" are assigned only when it is clear that a unit's accurate description would more reasonably fall between the narrative complexity descriptors.

Using the Excel spreadsheet greatly simplifies the calculations. Entering the sub-element scores onto the spreadsheet automatically calculates the total raw score. The raw score then determines the program complexity level. Complexity score ranges are as follows:

Low Complexity	(1)	=	10 - 2995
Moderate Complexity	(2)	=	2996 - 5991
High Complexity	(3)	=	5992 - 7490

Manual Calculation Instructions

Step 1. Assign a score, 0-5, to each sub-element within an element.

Step 2. Multiply the sub-element score for each sub-element by the Sub-element Weighting Value.

Step 3. Add the sum of all products obtained in Step 2, for a total sub-element score.

Step 4. Multiply the total sub-element score obtained in Step 3 by the Element Weighting Value. This product is the sub-total score for that element.

Step 5. Perform Steps 1-4 for all eight elements.
Step 6. Add the sum of all eight element total scores for the Grand Total Points.
Step 7. Compare the Grand Total Points to the above complexity score ranges to determine the complexity level of the unit being evaluated.

See example, pp 7 & 8

NOTE:
Determination of program complexity in turn determines the complexity of the Fire Program Manager's position (and resultant grade, competencies, etc.). It does NOT necessarily determine the complexity of subordinate positions that have variable complexity, such as the Prescribed Fire/Fuels Specialist, Fire Prevention & Education Specialist, and Operations Specialist. Those complexities (and resultant grades, competencies, etc.) are determined by the relative complexity of that sub-program within the overall fire management program. The appropriate complexity elements identified in the Complexity Descriptors may assist in making those determinations, but in and of themselves may not be the sole determinants, if, for example other fire duties are included in a Specialist's position description.

GUIDING PRINCIPLES

There were numerous assumptions that became guiding principles in the development of the complexity descriptors. It is imperative that these be fully understood prior to completing an analysis of a unit's fire program complexity!

The listing of guiding principles below is not in priority order- each are equally important.

1. Descriptors are worded such that the maximum level of complexity for the "low" category is described, and the minimum level of complexity for the "high" category is described.

2. Strong effort was made to be consistent with the 1995 Federal Wildland Fire Policy and Program Review terminology and philosophy.

3. Appropriations language (DOI and Related Agencies Appropriations Act) guided direction of what sub-elements were included in which elements.

4. Numbers, where indicated in the descriptors, are initial best guess "thresholds" and likely require normal distribution adjustments.

5. The complexity descriptors only address the "fire job", not collateral or multi-functional duties.

6. These descriptors only address fire management program activities, not other resource activities, such as timber, range, or recreation etc.

7. Sub-element description statements are indicators only and may not be all encompassing; the preponderance of descriptors within a specific complexity level should be met to apply.

8. While an effort was made to reduce redundancy, some sub-elements correctly overlap or are repeated in several elements.

9. Competency and qualification standards must be commensurate with identified program complexity levels.

10. Complexity is evaluated based upon the area of responsibility (geographic or otherwise) for the unit being rated. For example, in the Lower Colorado River, BIA, FWS, and BLM share fire management responsibilities. All provide fire management resources, but the BLM provides program management oversight, i.e. the BLM fire program manager reports to the three agency administrators. So, when the three agencies evaluate their respective programs, BLM's area of responsibility would be greater than the other two agencies'.

11. For the purposes of this document the term “program activities” refers specifically to the following seven management areas: wildland fire management, prescribed fire management, fuels management, wildfire prevention/wildland fire education, preparedness, aviation management, and interagency operations. Do not confuse these with the eight program elements that define program complexity.

12. Element weighting values reflect the importance of the eight elements that determine program complexity. For example, "Program Management"' is rated a "10" element weighting value, and "Prevention/Education" is rated a "2", reflecting the relative importance of program management activities over prevention/education activities when determining the overall program complexity.

13. While not a stand-alone element or sub-element, “safety” is captured in relevant program sub-elements throughout the document.

14. Element weighting values do not reflect the importance of the sub-elements, but rather the complexity associated with that sub-element. For instance, safety is of extreme importance, but as a sub-element in the "Wildland Fire" element, "Firefighter and Public Safety" as described is of less complexity than the "Values to be Protected" sub-element. In other words, it is assumed that safety is built into all the elements as appropriate, but this sub-element in the above example deals with the extra complexity posed by safety issues.

15. Program staffing and complexity ratings should be based upon Most Efficient/Effective Levels (MEL), not the reduced funding levels which are based upon a percentage of MEL. This is because the funding calculation varies annually, while MEL should remain constant over a period of time.

16. Complexity assignments should be based upon approved management plans (land/resource/fire/et al), not upon future program desires. This statement is not intended to be in conflict with #15 above.

17. A strong attempt was made at consistency in philosophy and content with the Federal Fire & Aviation Leadership Council (FFALC) preparedness/planning ad hoc group, and other agency position management task groups, such as the Forest Service R-5 Standard Position Description Task Group.

18. Intent of these complexity descriptors is to address the broadest spectrum of program complexities on an interagency basis, not simply from the perspective of any one agency.

19. The distribution of these interagency program complexities (L, M, H) is measured on an interagency basis, not on an individual agency basis. It is assumed that most programs on an interagency basis will fall into the “Moderate” program complexity level.

20. Each individual fire program unit should be evaluated on its own merit against the interagency complexity standards.

21. The planning function is included in the “Program Management” element.

22. The training function is included in the “Preparedness” element.

Ranking Scheme					
	Column 1	Column 2	Column 3	Column 4	
	EWV		**Agency A**	**Agency A**	
Program Management	***10***	**SWV**	**Unit**	**Unit**	
Fire Season		5	3	15	
Budget		10	4	40	
Logistics		5	3	15	
Workforce Management		10	4	40	
Program Objectives		10	4	40	
Planning		2	3	6	
Contracts		2	3	6	
Agreements, Cooperators		5	3	15	
Multi-Unit Responsibility		10	4	40	
Social, Political, Economic		10	5	50	
				267	*Total Points*
				2670	*Total Points * EWV*
	EWV		**Agency A**	**Agency A**	
Preparedness	***10***	**SWV**	**Unit**	**Unit**	
Training, Quals		5	1	5	
Initial Attack Dispatch Office		2	3	6	
Caches		2	1	2	
Support to other Units		5	1	5	
Fuels and Fire Danger		10	3	30	
Fire Resource Modules		10	2	20	
				68	*Total Points*
				680	*Total Points * EWV*
	EWV		**Agency A**	**Agency A**	
Program Interdependence	***10***	**SWV**	**Unit**	**Unit**	
Consequence of Outcomes of 1 Program Activity on Another		5	3	15	
				15	*Total Points*
				150	*Total Points * EWV*
	EWV		**Agency A**	**Agency A**	
Land Management Base	***5***	**SWV**	**Unit**	**Unit**	
Total Acres Managed		5	4	20	
Ownership Patterns		10	5	50	
Wildland/Urban		10	5	50	
Cultural, Natural Resources		5	3	15	
				135	*Total Points*
				675	*Total Points * EWV*

	EWV		**Agency A**	**Agency A**	
Wildland Fire	***5***	**SWV**	**Unit**	**Unit**	
Average Annual Wildland Fire Occurrence		5	3	15	
Average Annual Wildland fire Acres Burned		5	3	15	
Length of Wildland Fire Season		5	3	15	
Values to be Protected		5	4	20	
Wildland Fire Management		5	3	15	
Firefighter and Public Safety		2	5	10	
Fuels and Fire Behavior		2	5	10	
				100	*Total Points*
				500	*Total Points * EWV*
	EWV		**Agency A**	**Agency A**	
Prescribed Fire/Fuels	***5***	**SWV**	**Unit**	**Unit**	
Prescribed Fire		5	2	10	
Prescribed Fire Multiple Ownership/Jurisdiction		2	4	8	
Prescribe Fire Burn Season Length		2	5	10	
Mechanical Treatment Objectives		5	3	15	
Mechanical Implementation		2	3	6	
Mechanical Values to be Protected		2	3	6	
				55	*Total Points*
				275	*Total Points * EWV*
	EWV		**Agency A**	**Agency A**	
Aviation	***5***	**SWV**	**Unit**	**Unit**	
Aviation		5	1	5	
				5	*Total Points*
				25	*Total Points * EWV*
	EWV		**Agency A**	**Agency A**	
Prevention	***2***	**SWV**	**Unit**	**Unit**	
Prevention		2	3	6	
Wildland Fire Education		2	1	2	
				8	*Total Points*
				16	*Total Points * EWV*
TOTAL				4991	*Grand Total Points * EWV*
				0	*Lowest Possible Grand Total Points * EWV*
EWV = Element Weighting Value				7490	*Highest Possible Grand Total Points * EWV*
SWV = Sub-Element Weighting Value				2	*Overall Element Complexity Score on a 1 (Low), 2 (Medium), and 3 (High) scale*